

Storm Drain Inlet Protection

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The Caltrans Storm Water Quality Practice Guidelines recommends that storm drain inlet protection be used when there is the potential for sediment-laden storm water runoff and/or un-permitted non-storm water discharges that could enter a drain inlet while conducting maintenance activities. This bulletin reviews procedures for properly protecting storm drain inlets so that pollutants related to maintenance activities are not discharged to the storm drainage system.

Think Public Safety First

Striking a balance between storm water pollution prevention and safety can be challenging. However, both goals can be achieved with proper planning and implementation of appropriate BMPs. Drain inlet protection can potentially impact safety in three ways: (1) BMPs may cause excessive ponding of water in traffic lanes, (2) BMPs may impact the normal flow of traffic, and (3) installing and maintaining BMP in traffic lanes may jeopardize the safety of maintenance personnel.

Think Public Safety First! Minimize incidents and do not compromise safety in order to install or maintain water pollution controls.

Storm Drain Inlet Protection

Storm drain inlet protection may be needed during a number of different maintenance activities, including:

- Asphalt rehab and paving
- Concrete paving and repair (including saw cutting and mud jacking)
- Graffiti removal
- Landscape maintenance
- Paint striping and marking
- Vehicles and equipment repair and fueling
- Slide and slipout cleanup and repair
- Shoulder grading

Depending on the maintenance activity and the location, inlet protection practices may be used in two ways: (1) to detain and/or filter sediment-laden storm water runoff

and (2) to prevent un-permitted non-storm water discharges from entering the storm water drainage system.

(1) Storm drain inlets should be protected during maintenance activities to filter sediment-laden storm water runoff by surrounding the inlet with one or a combination of the following temporary controls:

- Silt fence
- Fiber roll
- Straw bale barrier
- Sand bag barrier
- Gravel bag barrier

Sandbags promote ponding of water and settlement of sediment, where silt fence, fiber rolls, straw bale and gravel bag barriers tend to filter sediment while allowing for a flow of water through the BMP, thus reducing the potential for ponding. Also, try other new approved products as they become available to achieve the same goals of minimizing pollutants in the storm drainage system.



Sand or gravel bag barrier used to protect storm drain inlet.

(2) Impermeable covers should be used to prevent un-permitted non-storm water discharges from entering the storm water drainage system during maintenance activities, such as

- Rubber/polyurethane covers or barriers
- Sand bag barriers



Rubber or polyurethane barrier used to protect storm drain inlet.

Last Line of Defense

Storm drain inlet protection is the last line of defense to prevent sediment and other pollutants from discharges. Source control BMPs should be implemented at the activity site, upgradient of inlets, to minimize storm water from transporting sediment and/or other pollutants to the storm drain inlet.

Cleanup and Disposal

When work is completed, it is the responsibility of the maintenance crew to pickup BMP materials and any accumulated sediment, debris, and/or trash within the area of the protected inlets on the highway right of way. Store reusable BMPs at the Maintenance Station when no longer needed and properly dispose of any accumulated sediment, debris, and/or trash along with BMP materials that are no longer usable.



Improperly maintained sand bag barriers will not protect storm drain inlets.